From: DeMaria, Eva
To: "ORR Jim"
Cc: Michael Allen (allenmc@cdmsmith.com)
Subject: RE: Northwest Pipe Well Redevelopment
Date: Wednesday, October 05, 2016 9:37:00 AM

Hi Jim-

Just a few comments:

- The spec for the peristaltic pump does indicate it can pump 2-3 gpm which is comparable to what one can expect from a submersible pump
- The roughly 27 foot peristaltic pump depth limit should not be a problem at this location
- The consultant should consider moving the peristaltic pump tubing intake through the screened interval to remove as much disturbed fines as possible
- While the Qwater well developers are disposable the pipe that attaches to allow for the surging is not and will require decontamination between wells
- One word of caution, nothing should be done to compromise the integrity of the wells; for example the manufacturer recommends the surging speed of the Qwater well developer should not exceed 1/2 foot per second. Strong upstrokes can cause the screen to collapse due to the high suction that can be generated

Eva

From: ORR Jim [mailto:jim.orr@state.or.us]
Sent: Friday, September 30, 2016 12:38 PM
To: DeMaria, Eva <DeMaria.Eva@epa.gov>
Subject: FW: Northwest Pipe Well Redevelopment

Eva,

NWP requested that they use the peristaltic pumps specified below for development. It has an add on surge block.

No comments requested unless you feel the change to the work plan is significant.

I said it was OK. Jorr

From: Gretchen.Gee@ch2m.com [mailto:Gretchen.Gee@ch2m.com]
Sent: Friday, September 30, 2016 12:20 PM
To: jim.orr@state.or.us
Cc: SHeldtSheller@nwpipe.com
Subject: Northwest Pipe Well Redevelopment

Hi Jim,

Thanks for taking my call this morning. Please see the requested links below to the pump, tubing, and Qwater developer specs:

https://www.masterflex.com/i/masterflex-i-p-precision-brushless-drive-33-to-650-rpm-115-230-vac/7741010
http://www.coleparmer.com/TechLibraryArticle/769
http://www.welldeveloper.com/advantages/qwater-well-developers.html

As discussed, we will plan to develop the wells with the peristaltic pump capable of flow rates of approximately 3 gpm along with disposable Qwater well developers and dedicated tubing, rather than using a submersible pump as specified in the work plan. This combination will reduce the risk of cross-contamination, eliminate the need to decon the submersible pump or surge block between wells, reduce IDW water, have less potential for fouling the pump, and make controlling the flow rate easier.

Also, as specified in the work plan, we would like to collect some additional well elevations depending on if these wells are also accessible. The attached map shows the four additional wells selected for well elevation monitoring (T4S1MW-02S, T4S1MW-17, T4S1MW-25, and T4S1MW-10). If accessible, these wells will be part of the elevation survey performed on Monday.

Let me know if you have any questions.

Thanks,

Gretchen

Gretchen Gee
Environmental Engineer 3
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